

Arts

Virtually Enhanced Languages

Scott Grant NTNU 2017 http://www.virtuallyenhancedlanguages.com



Background

- I am the coordinator of and teach two gateway units in our Chinese studies undergraduate program at Monash University in Melbourne, Australia, called Chinese Introductory 1 & 2 for non-background speakers and two 3rd year capstone units called Chinese Online Media 1 & 2.
- I also work closely with the coordinator of Chinese Introductory for Background Speakers 1 & 2 who has also incorporated the approach I will be talking to you about today in her lessons.

- I started learning Chinese at the age of 24 at Sunday school in my home town of Melbourne. I did this for about a year. We did not learn to read or write any Chinese characters, but we did learn a lot of useful spoken phrases.
- At the age of 25 I left my job and went to China to study the language and subsequently stayed for four years. During this time I married and my wife and my first daughter was born in China.
- My experience of learning the language was that while I learned a lot in the structured environment of the classroom, like many others, I learned equally as much in the unstructured every-day life environment outside the classroom.
- After a number of years in industry that involved regular business trips to China, I began teaching Chinese language and culture at Monash in 1997.



- Tertiary level students clearly benefit from the structured nature of a traditional classroom based, textbook based foreign language curriculum.
- With large class sizes and limited contact hours, the formal tertiary curriculum struggles to provide students with opportunities to experiment with and consolidate the language and cultural knowledge they are learning in authentic ways that make learning more than just an academic exercise. This is especially true for non-background students.
- In a multicultural immigrant society like Australia, opportunities for students to experience authentic use of Chinese language and culture should be abundant with the increasing number of Chinese speaking migrants and international students, and with university supported opportunities to spend time incountry.
- However, many factors limit students' willingness and ability to access these opportunities, such as personality traits (e.g. shyness, lack of confidence), limited finances, limited time, logistics, and so on.

- In 2005 the idea struck me that we might be able to use computer games to simulate ordinary everyday tasks requiring the use of Chinese language as a means of communication.
- It took until 2007 for me to find a platform I could work with to achieve this. That platform was (and still is) Second Life (although we now also use OpenSim).
- For those not familiar with Second Life, it is a highly customisable commercial 3D multiuser virtual environment that was primarily designed for social networking, but which has been adapted by educators from a wide range of disciplines for educational purposes.
- From 2008 I began incorporating lessons based in the 3D multiuser virtual environment of Second Life into our formal introductory level Chinese language and culture curriculum.



Pedagogical approach

- In an attempt to design lessons that provide opportunities for authentic communication within the confines of a foreign language classroom, an approach known as task-based language learning (TBLL) was adopted.
- TBLL involves communication activities using language that is meaningful to the learner to carry out set tasks that have a purpose other than just the practice of language, i.e. tasks that reflect real-life activities.
- 3D multiuser virtual environments like Second Life provide a way to simulate immersive realistic scenarios that require meaningful communication within the framework of a formal curriculum and the constraints of the foreign language classroom.



Our 3D multiuser virtual environment projects

Chinese Island 2008 - today

Virtual Arabia 2012

Virtual Prato 2013 – today VEL 2014 – today

Chinese Island





Chinese Island

- A Chinese-themed virtual city ("Chinese Island") in Second Life was built and TBLL lessons were incorporated into the mainstream curriculum of introductory level students in 2008-2009.
- A total of six 2-hour lessons were designed and incorporated into the formal teaching schedule as computer lab sessions (3 lessons per semester).
- The lessons were constructed around topics appearing in the main textbook used by Chinese Introductory students at Monash.
- Learners interact in Chinese either with highly interactive pre-programmed Non-player Characters (NPCs – text-based) and / or live native speakers (voice-based – a collaborative project with Professor Lan and NTNU).
- Since 2008, over 1500 introductory level students have undertaken lessons on Chinese Island (mainly with NPCs).



The lessons in a bigger context

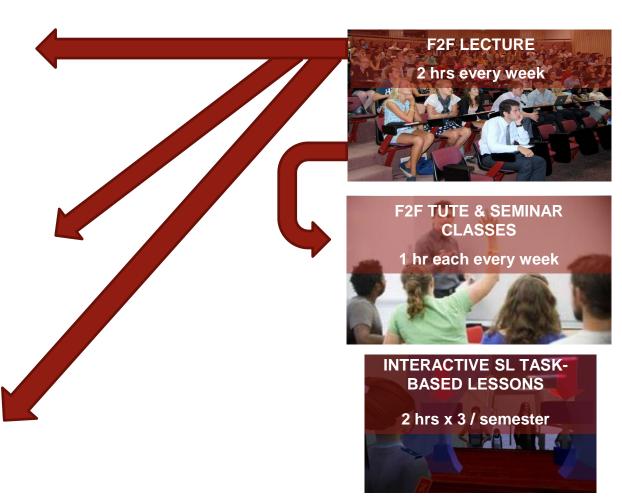
ASYNCHRONOUS













Chinese Island

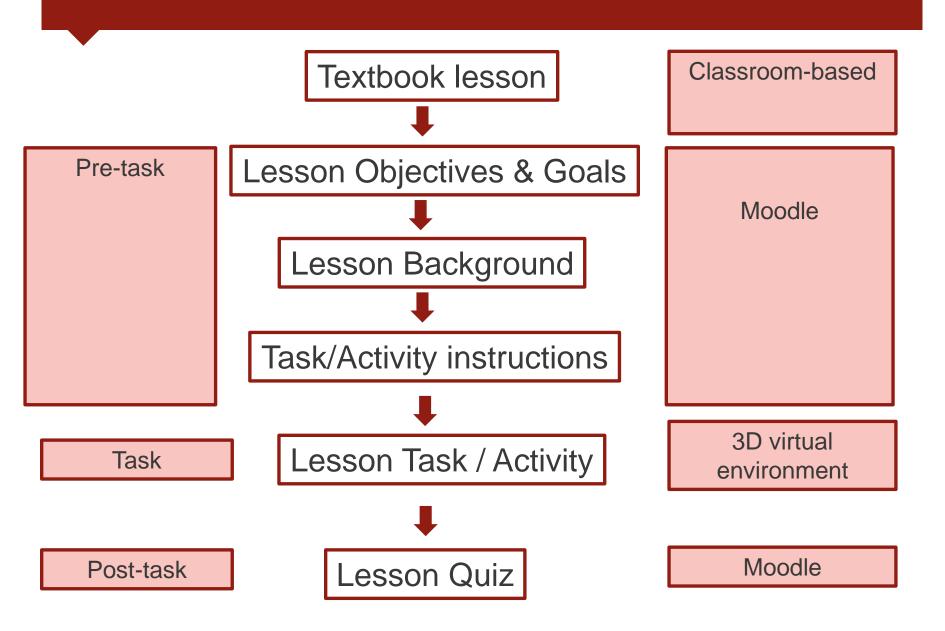
- Topics include:
 - restaurants
 - restaurant culture
 - business culture the banquette
 - making a traditional dish
 - shopping
 - buying fresh ingredients from a farmers market
 - buying street food
 - using Chinese currency
 - asking for & following directions
 - reading a range of signs, including street and traffic signs



Chinese Island

- seeing a doctor
 - learning the process
- purchasing railway tickets
 - learning about types of trains & tickets
- renting accommodation
 - talking to a real estate agent
- festivals
 - Qingming Grave Sweeping Festival
 - Duanwu Dragon Boat Festival
 - Zhongqiu Mooncake Festival





Textbook lesson





Lesson objectives

Lesson Objectives

By the end of this lesson you will have:

- (a) Practiced enquiring about rental accommodation in China (Lesson 17)
- (b) Learned a range of vocabulary and phrases associated with housing and accommodation (Lesson 17+)
- (c) Practiced following street directions (Lesson 17)
- (d) Practiced reading signs in Chinese (All lessons)
- (e) Learned about a popular Chinese festival (new material)



Pre-task background materials

Background - Renting Accommodation in China

New Words 生词

当地人 - dāngdì rén - local people

当地 - dāngdì - the local area

租房子 - zū fángzi - to rent a house / apartment / accommodation

卧室 - wòshì - 睡觉的房间

客厅 - kètīng - lounge room

家具 - jiājù – furniture

租金 - zūjīn - rental fee

租房子

如果你在中国学习很长时间的话,可以在学校宿舍里住,可以在当地人的家里住,也可以自己在外面租房子。在学生宿舍里住很好,人多,每天都很热闹,上课也方便,但是有时候太吵了。在当地人家里住也很好,可以天天说中文,练习你的口语和听力,也不用自己做菜,但是有时候进来出去不太方便,晚上回来很晚的话,房东可能会不高兴。

在中国的大城市里,自己在外面租房子比较方便。你可以跟几个朋友一起租一套公寓,这样,你们晚上回家晚一点,没关系。你想租房子的话,要先找租房公司问一下当地有些什么房子要出租。有几个问题一定要问清楚。第一,出租的房子有几个卧室,有没有客厅、卫生间和厨房?第二,有没有家具和电器(电水箱、电视机、洗衣机、电话、空调)?第三,一个月要付多少钱租金?要不要付押金?押金要付多少?押金什么时候还给你?你还应该去看看房子。你如果比较满意的话,合同最好先拿回家看看。

To see the pinyin for the above passage, click on the eye below:

8

To hear the above passage, click on the link below:

Listen to Passage



Tasks Instructions

Lesson Plan & Task

Explanation

你在中国岛学习。你想从学校的学生宿舍搬出去,自己租房子。搬出去以前,你先去租房公司问一些问题。

租房产公司 - zūfáng gōngsī - rental accommodation agency

Your task

Your task is:

- (1) Go to the rental accommodation agency and find the answers to the questions in the 'Rental Accommodation Quiz' below. You can ask the manager for information and you can also look around his office and the rental houses to find information.
- (2) Find the house with the double happiness characters 喜喜 (xǐ xǐ) and watch the video on Chinese Valentines Day 七夕节 (Qīxì jié).
- (3) Enter your answers based on your enquiries about renting accommodation and on the information in the video on 七夕节 into the quiz below and then submit it.

MAKE SURE YOU ARE WEARING YOUR CHINESE ISLAND HUD V41 & the Text Display HUD KV13

Successful completion of the task

Successfully completing the task requires you to answer all the questions in the 'Rental Accommodation Quiz' below.

Lesson Starting Location

Lesson Starting Location (click to open map)

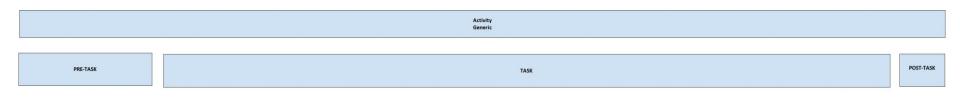


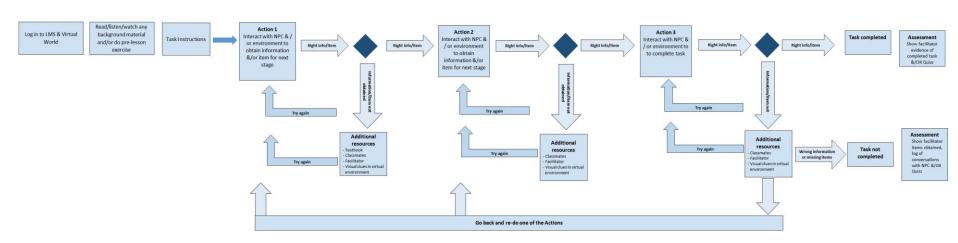
Task related quizzes

Rental Accommodation Quiz	
Please answer the questions below based on your investigation of the accommodation situation on Chinese Island.	
Be sure to consult your textbook when you are thinking about how to ask various questions.	
Please write all numbers in Chinese characters both for the quiz and when conversing with the rental accommodation agency may	anager.
1. There are three houses for rent. Which houses are they?	
(Enter full street address, i.e. street name and number. For street number enter Chinese characters. Do not enter village or island name.)	
For example: 北京路十三号	
o o	
2. Which two houses have electrical appliances and furniture?	
(Please write full street address, i.e. name of street and street number. For street number enter Chinese characters. Do not enter village or	r island name.)
For example: 北京路十三号	
3.1. In each of the houses that have electrical appliances and furniture, how many air conditioners are there?	
(Please write full street address, i.e. name of street and street number followed by 有 then followed by the number in Chinese characters.)	
For example: 北京路十三号有三	
台空调。	
·····································	
	THE AVITUA



Task sequence









Virtual reflecting the real





Chinese Island agency

Real agency



Virtual reflecting the real

租

中国岛房产公司

地址:长城村南河路 11号

房间数量:一房一厅

室内设施: 电视机、洗衣机、电冰

箱、电话、空调、家具

租金: 一千五百块钱/月

地址: 长城村南河路 9 号 电话: 9688 888



Real agency



Information gathering





中国岛房产公司

地址:长城村南河路 11号

房间数量:一房一厅

室内设施: 电视机、洗衣机、电冰

箱、电话、空调、家具

租金: 一千五百块钱/月

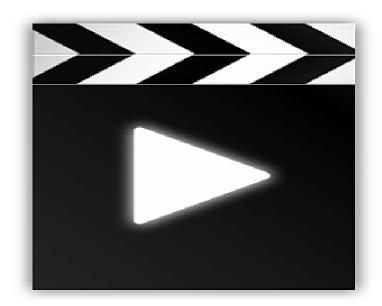
地址:长城村南河路 9号 电话: 9688 888



- One of the key elements in the Chinese Island approach are the non-player characters (NPCs) that students interact with during the course of the task.
- Students interact communicatively with the NPCs by text-based chat in Chinese characters.
- There are no menus with pre-set choices to choose from. Rather, students communicate in "natural language" and have to "think on their feet" in terms of how to phrase the questions they need to ask the NPCs. Students also need to think about how to react to NPC responses. Sometimes the NPCs will provide only partial information in a response, thus requiring students to work out what further information they need and how to ask for it.
- In some cases the information contained in NPC responses is simply used to answer a quiz question. In others, students are required to take further action based on the information provided in order to move on to the next stage of the task.
- The NPCs respond in both Chinese character text chat and in audio. Both the text-based chat and audio can be replayed at any time.
- The NPCs also perform other actions such as taking payment for an item and then giving the item to students once the full amount has been paid.



The following short video will give you a rough idea of how this communicative interaction between students and the NPCs is carried out. The lesson demonstrated revolves around the topic of renting accommodation in China, and is a mixture of textbook content and content from the real world.





- Conversational content that the NPCs can respond to can quickly and conveniently modified by making changes on an Excel spreadsheet and then copying the content into the NPC script (program).
- As will be seen in the next slide, the program responds to key words or phrases of varying strictness, i.e. in some cases one key word and in others more complete expressions.
 Where key words or phrases are matched a pre-set response is then output in text form, and trigger words for audio and other functions (such as triggering the virtual wallet for payment) are sent out at the same time.



////Errors////	/////Emors/////	////Errors////	////Errors////
"钱房空调",	"王经理: 您大概想问【有空调的房子一个月多少钱】对吧?请你在说一遍 "",	"ni dagai xiang wen you kongtiao de fangzi duoshao",	1,
"多少付押金",	"王经理: 您大概想问【要付多少押金】对吧?请你在说一遍 "飞气",	"ni dagai xiang w en y ao fu duoshao yajin dui ba qing zai shuo",	1,
////Greetings////	/////Greetings////	////Greetings////	////Greetings///
"你好",	"王经理: 您好!",	"nin hao",	1,
"你名字",	"王经理:我姓张。我的名字叫荣誉Rongyu!",	"wo xing Zhang wo de mingzi jiao Rongyu",	1,
////What if don't pay rent/////	/////What if don't pay rent/////	/////What if don't pay rent/////	////What if don't pay rent/////
"不付租金",	"王经理:我们会请你搬出去",	"women hui qing ni banchuqu",	1,
"不准时",	"王经理: 我们会请你搬出去",	"women hui qing ni banchuqu",	1,
"押金给",	"王经理: 你如果每个月付租金,搬出去的时候押金会还给你。不付租金的话,押金就不还给你",	"meige yue fu zujin yajin huangei ni",	1,
/////General questions about rent/////	/////General questions about rent/////	/////General questions about rent/////	questions about rent/////
"要文件",	"王经理:请你到外面去看看我们公司橱窗里的牌子?"	"qing ni dao waimian qu kankan chuchuang li de paizi",	1,
"要证明",	"王经理:请你到外面去看看我们公司橱窗里的牌子 "ご",	"qing ni dao waimian qu kankan chuchuang li de paizi",	1,
"想租",	"王经理:有三套房子要出租:南河路七号和十一号,还有春雨路五号 "",	"you santao fangzi yao chuzu",	1,
"要租",	"王经理: 有三套房子要出租: 南河路七号和十一号, 还有春雨路五号 "",	"you santao fangzi yao chuzu",	1,
"希望租",	"王经理: 有三套房子要出租: 南河路七号和十一号, 还有毒雨路五号 (*) (*)	"you santao fangzi yao chuzu",	1,
"可以租",	"王经理:有三套房子要出租:南河路七号和十一号,还有春雨路五号 "","	"you santao fangzi yao chuzu",	1,
"能租",	"王经理:有三套房子要出租:南河路七号和十一号,还有春雨路五号 "",	"you santao fangzi yao chuzu",	1,
"出租",	"王经理:有三套房子要出租:南河路七号和十一号,还有春雨路五号 "",	"you santao fangzi yao chuzu",	1,
"租出",	"王经理:有三套房子要出租:南河路七号和十一号,还有春雨路五号 "","	"you santao fangzi yao chuzu",	1,
"买房",	"王经理:对不起,我们只有要出租的房子",	"duibuqi women zhiyou yao chuzu de fangzi",	1,



Chinese Island - restaurant





Chinese Island - restaurant





Chinese Island – canal & courtyard house





Chinese Island - crossroads





Chinese Island – traditional college





Chinese Island – village street





Chinese Island – farmers market





Chinese Island – railway station





Chinese Island – gravesite





VEL project

- **Funded** by the Australian Federal Government Office for Learning and Teaching, Virtually Enhanced Languages (VEL) builds on eight years of experience using online *3D multiuser virtual environment educational simulations* (3D MVEES) to enhance tertiary level Chinese language and culture learning.
- The goal of the VEL project is to promote the use of immersive 3D MVEES in foreign language classrooms to carry out task-based language learning by lowering technological and pedagogical barriers to entry through the creation and sharing of free resources within a community of practice.
- The initial focus of the project is on tertiary level Chinese language and culture. A longer term aspiration of the project is to develop similar resources for other languages.



VEL – freely shareable resources

- Based on the pedagogical principles that underlie Chinese Island:
 - A new virtual environment replicating many of the pedagogical, technical and virtual resources of the Chinese Island environment has been developed on an open-source platform called OpenSim.
 - All resources developed for this new environment are freely and easily shareable with other educators (no IP issues; the complete virtual environment is stored in one transferrable file).
 - In addition to being able to be run on external commercial hosting servers, the new environment can also run inside institutional firewalls on internal servers, on the hard disk drives of stand-alone personal computers, and on USB drives plugged into personal computers.



VEL – the virtual environment

- While maintaining the same virtual venues and scenarios as Chinese Island, the design of the VEL virtual environment is somewhat different.
- The new environment has a more "rural" feel, reflecting aspects of smaller towns in rural areas and towns on the fringes of large urban areas in China.



VEL - restaurant





VEL - restaurant





VEL – main street





VEL – traditional garden





VEL – canal outside garden



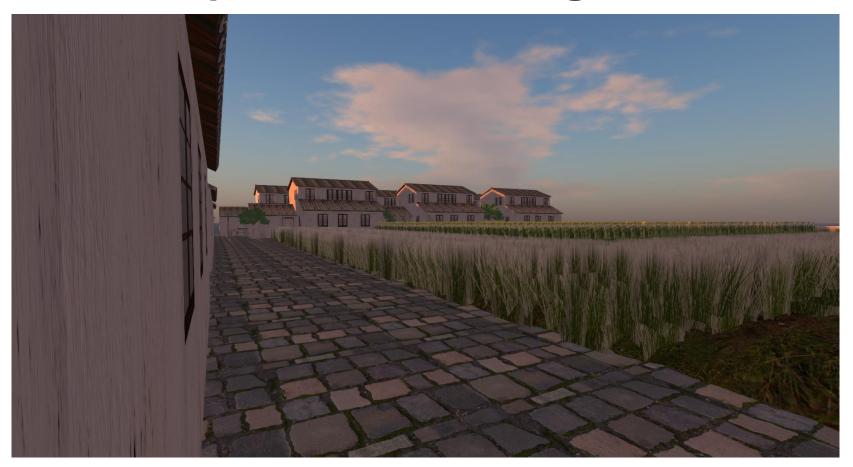


VEL – canal looking towards village



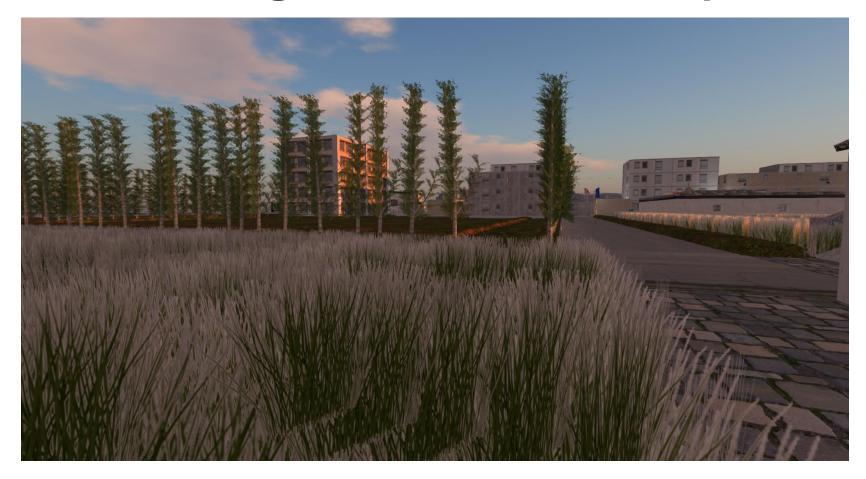


VEL – crops in front of village houses





VEL – looking back to the township



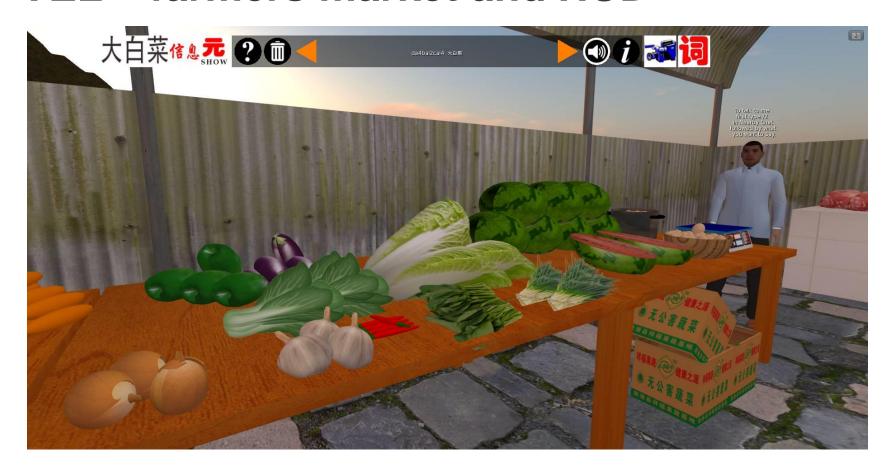


VEL – farmers market (in village)



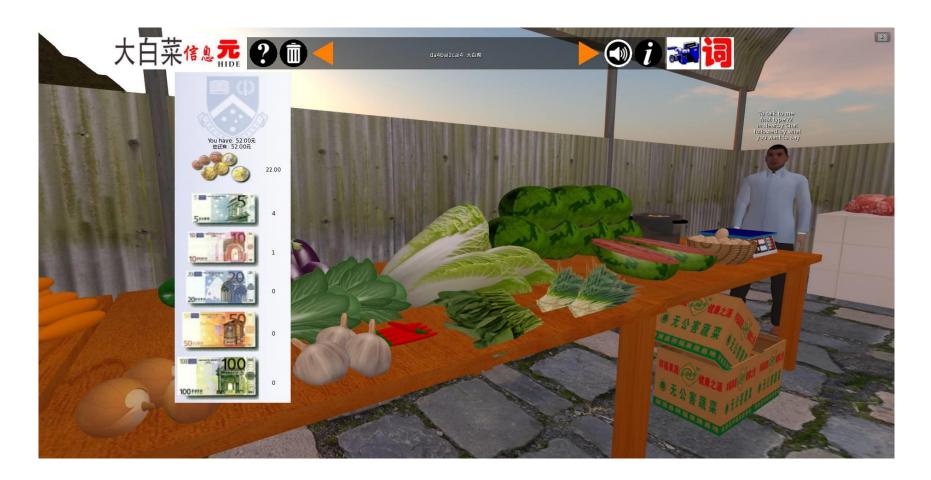


VEL – farmers market and HUD





VEL – HUD & wallet





VEL – grave site



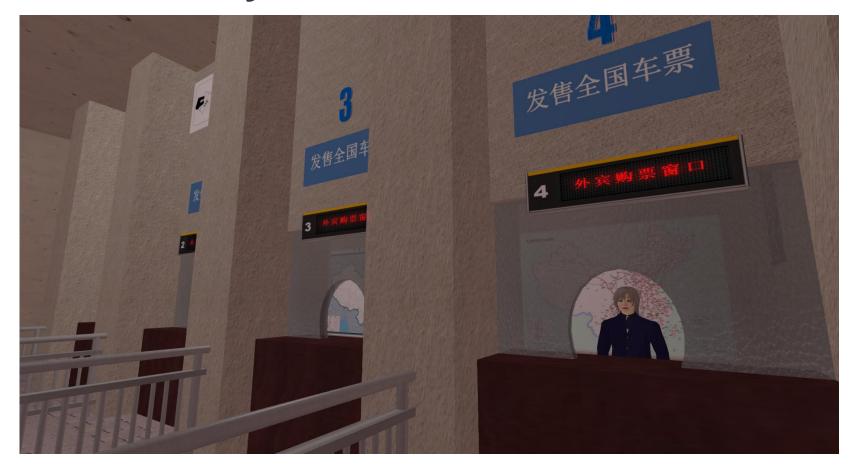


VEL – railway station entrance





VEL – railway station ticket windows



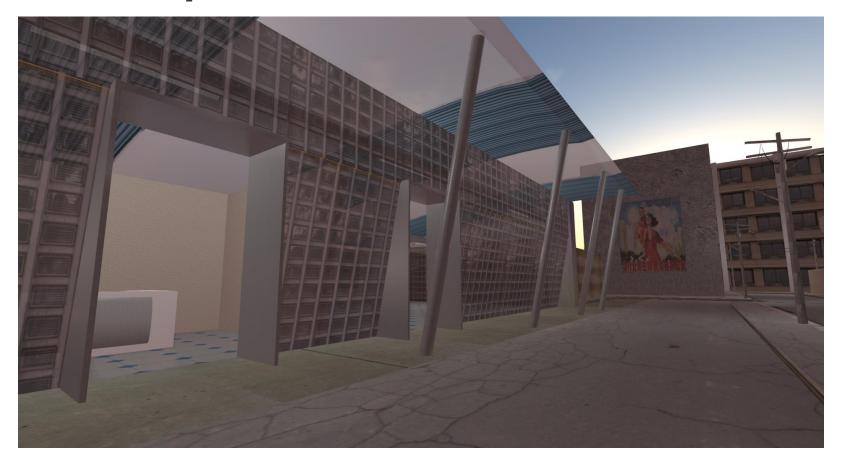


VEL – airport runway with plane





VEL – airport entrance





Research to date

- Self-efficacy
- Cognitive skills
- Second Language Acquisition Negotiation of Meaning
- Foreign Language Anxiety & Technical Anxiety
- **Embodied cognition**
- Task Based Language Learning
- Blended learning
- Effectiveness of VW lessons as substitute for face to face learning to free up time in face to face classes

Moving forward



